

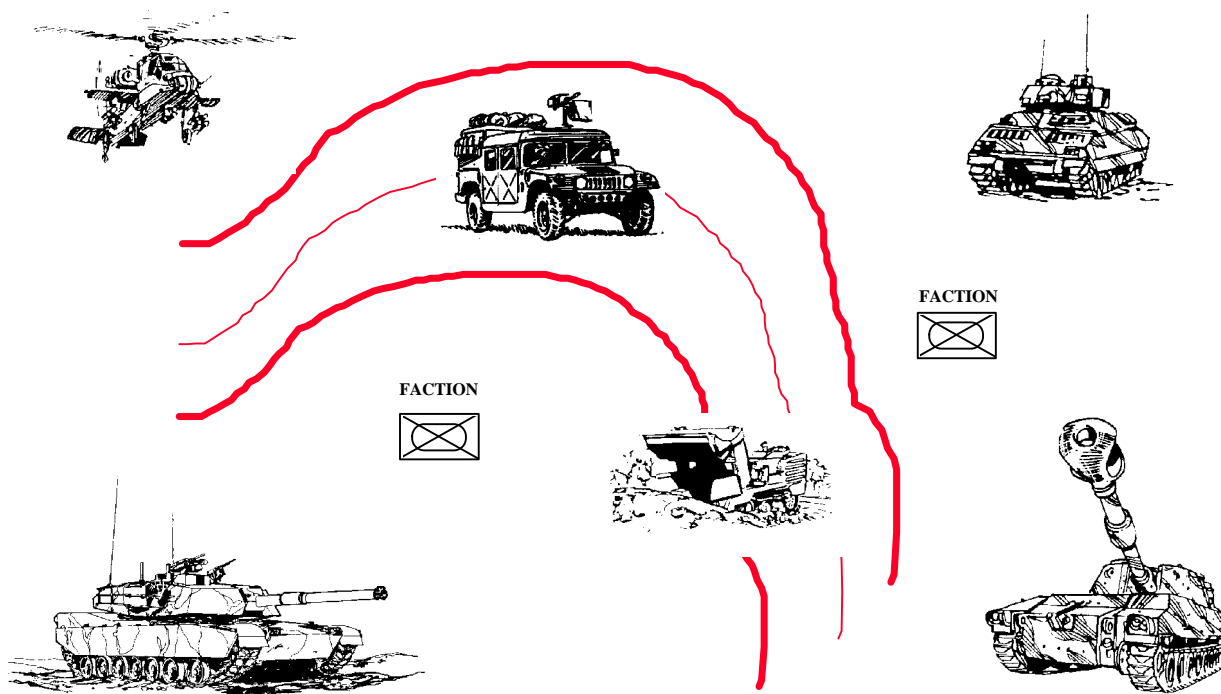


NEWSLETTER

No. 96-5

MAY 96

DRAWING A LINE IN THE MUD



**Establishing and Controlling a Zone of Separation
(ZOS)**

**CENTER FOR ARMY LESSONS LEARNED (CALL)
U. S. ARMY TRAINING AND DOCTRINE COMMAND (TRADOC)
FORT LEAVENWORTH, KS 66027-1350**

FOREWORD

Immediately upon crossing the Sava River into Bosnia-Herzegovina, *Task Force Eagle (TFE)* was faced with the enormous task of establishing a zone of separation (ZOS) between the former warring factions. This task, a first in our military history, was accomplished within 30 days of the start of the deployment. The magnitude of the effort is nearly incomprehensible given the ZOS snakes over 1,000 miles of a war-torn countryside that contains millions of mines, thousands of bunkers, and hundreds of miles of trenchlines. Not to mention the fact that those warring factions, having been engaged in intense combat for over four years, would be required to jointly develop and execute a plan that would entail the removal of the mines and fortifications within the ZOS.

The responsibility of verifying the work of the factions and ensuring compliance with the requirements agreed upon at Dayton and outlined in the General Framework Agreement for Peace (GFAP) - - rested squarely on the shoulders of the soldiers and leaders of TFE.

This newsletter provides the U. S. Army with the tactics, techniques, and procedures (TTPs) employed by TFE forces in establishing the ZOS. The intended endstate is that the reader, if given the task to plan the establishment of a ZOS, could do so, unencumbered by the fog of complete uncertainty on the nature of the mission. The development of many of the TTPs contained in this document began at the Combat Maneuver Training Center (CMTC) in Hohenfels, GE. The lessons learned from that training were refined and cultivated during actual operations in the former Yugoslavia.

The compilation of the lessons could not have been complete without the contributions of the following members of TFE who selflessly gave of their valuable time to assist in the documentation of the information contained in this newsletter:

COL Greg Fontenot	CPT Mark Vara
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LTC Todd Semonite	1LT Jeremy Bushyaeger
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This newsletter is designed for your use and dissemination. If your unit has identified other relevant lessons or information, please share them with the rest of the U.S. Army by contacting CALL at DSN 552-2255 or 3035, FAX DSN 552-9564, or commercial (913) 684-9564. Our E-mail address is call@leav-emh1.army.mil and our WWW home page is: <http://call.army.mil:1100/call.html>. Be sure to include your phone number and complete address when contacting us.

EDWARD J. FITZGERALD III
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Director, Center for Army Lessons Learned



Drawing a Line

in the Mud

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Unless otherwise stated, whenever the masculine or feminine gender is used, both are intended.

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INTRODUCTION

Establishing and Controlling a Zone of Separation (ZOS)

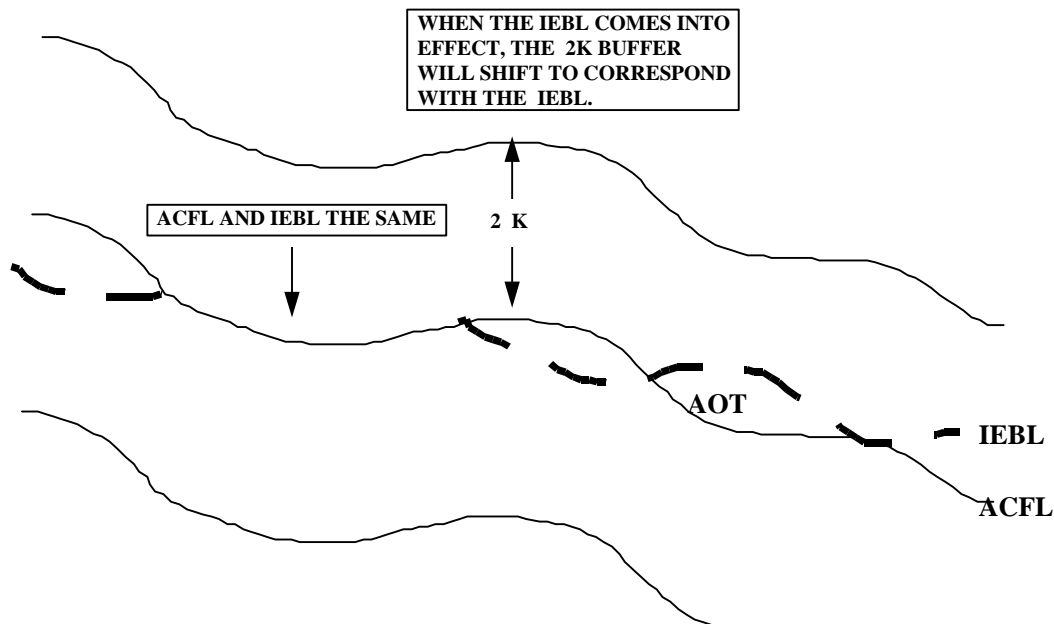
Concurrent with the deployment of Task Force Eagle (TFE) into Bosnia, the initial focus of operations was to separate the former warring factions (FWF) and ensure compliance in accordance with the General Framework Agreement for Peace (GFAP). Paramount to the success of this mission was the establishment of the zone of separation (ZOS). In simple terms, the ZOS is a buffer zone between the FWF. However, the ZOS, as defined in the GFAP, was represented by several potentially complex control measures which merit further explanation.

The Agreed Cease Fire Line (ACFL): This is the place where the fighting stopped. TFE units marked this line and two-kilometer zones on both sides of the ACFL. This four-kilometer zone was the *ACFL ZOS*.

The Inter-Entity Boundary (IEBL): This is the line that the parties in Dayton decided would be the permanent boundary between them. In some instances, the IEBL and the ACFL were the same, and in other places, they were not. The IEBL came into effect 45 days after TFE accepted transfer of authority from the United Nations Protection Force (UNPROFOR). At this time, the IEBL ZOS and its associated four-kilometer buffer zone replaced the ACFL ZOD and became the permanent zone of separation.

The Areas of Transfer (AOT): These are areas where the lines do not directly correspond. These are areas that are to be turned over from one party to another.

The 10-Kilometer Zone: The factions were also required to report the status of all their equipment and forces within a 10-kilometer radius on either side of the ACFL. This was *not* a bigger ZOS. However, TFE dedicated considerable assets to verify FWF compliance with the reporting requirements.



The ZOS was a dynamic area which changed in size in accordance with the requirements and specified timelines of the GFAP. Most of the timelines were based on events that followed the transfer of authority (TOA) from the United Nations Protection Force (UNPROFOR) to the Implementation Force (IFOR). The following represents these requirements as they pertain to the establishment of the ZOS.

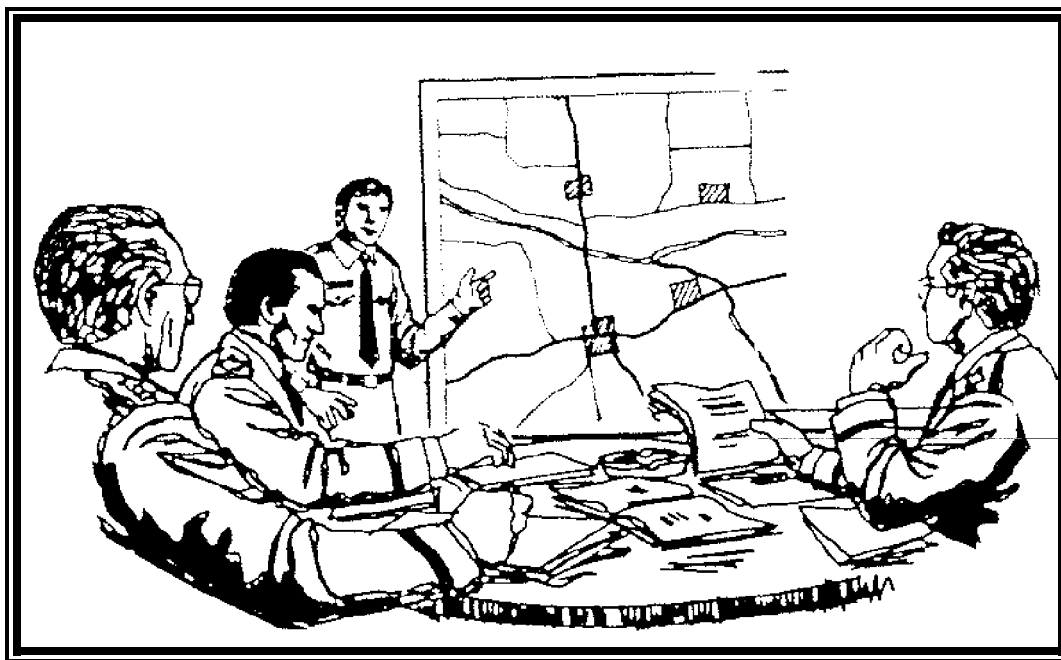
TOA + 30 Days: All parties must accomplish the following:

- Parties must withdraw all forces to their respective side of the ACFL ZOS.
- Remove all mines, unexploded ordnance (UXO), explosive devices, wire obstacles and fortifications.

TOA + 45 Days:

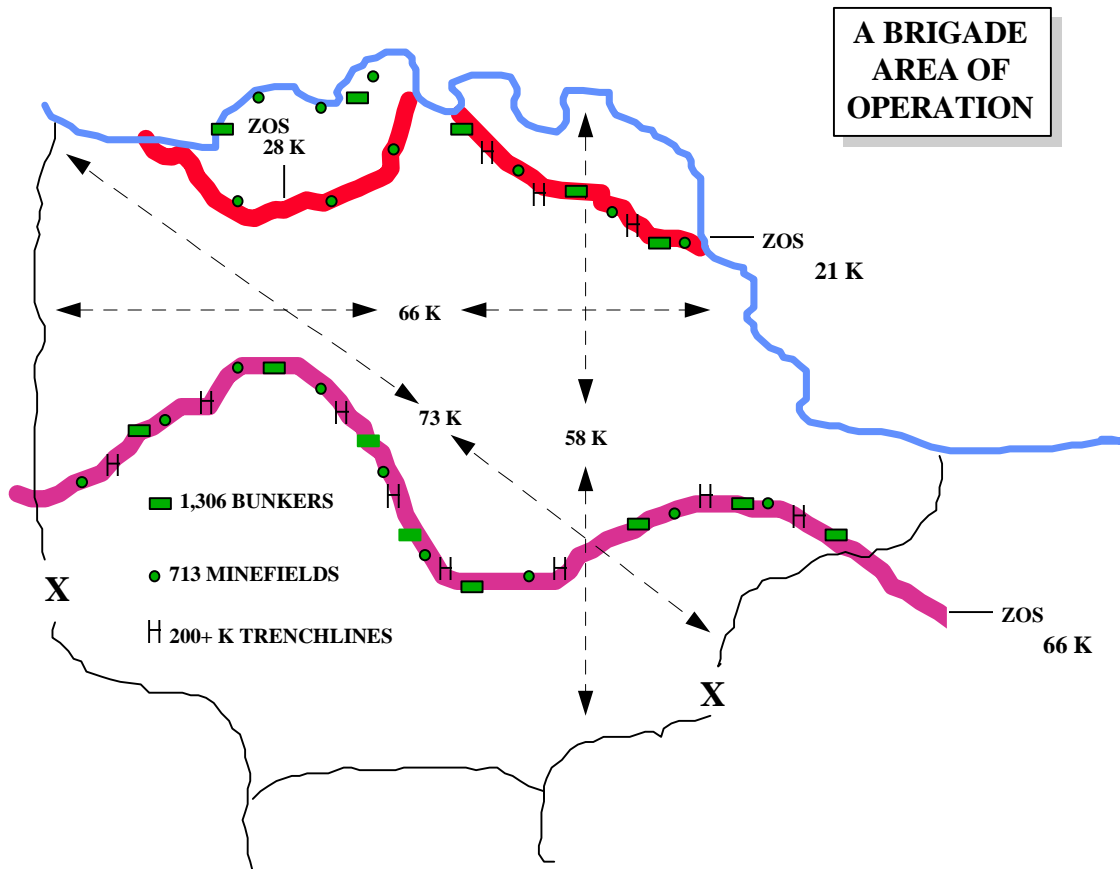
- The IEBL comes into effect.
- Withdrawing forces must completely vacate and clear AOTs, to include the removal of mines, demolitions, and UXO.

TOA + 91 Days: Entities to which an area is being transferred shall not put forces into the new areas until this date, or as determined by the IFOR commander.



All TFE brigade-sized task forces were responsible for at least one ZOS in their area of responsibility (AOR). One brigade's assigned ZOS(s) will be represented in this newsletter (this particular brigade was actually responsible for three separate ZOS in their AOR). However, the tactics, techniques, and procedures (TTPs) represented in this document generally reflect those TTPs generally employed by all brigade task forces (TFs) in theater.

The observed brigade had the unique responsibility of enforcing the GFAP through coordination with all three factions. Their sector spanned 58 kilometers north to south and 66 kilometers from the east to the west. Within their AOR, the brigade was responsible for 114+ kilometers of ZOS. Additionally, the brigade was responsible for verifying the removal of over 1,306 bunkers, 713 minefields, and 200 kilometers of trenchlines. The AOR also included seven major populated areas and numerous smaller towns which required dedicated assets to ensure mission success. To facilitate force protection and sustainment operations, 11 company-sized lodgement areas were established along with the Brigade Operating Base (BOB) and the Brigade Support Area (BSA). Platoon-sized units manned 11 checkpoints, four permanent observation posts, and secured several other critical nodes. ★





SECTION I

A Note on the Operational Environment in Bosnia

One of the most unique aspects was the concept of verification of FWF compliance. One must keep in mind that when the GFAP stated that all mines will be cleared from the ZOS, it was the FWF that cleared the mines, not TFE units and soldiers. Ensuring or enforcing compliance translated into TFE soldiers and leaders observing the FWF execute the mission and then verifying that it was completed to standard. Caution had to be applied to ensure impartiality. If one FWF perceived that TFE units were providing additional assistance to another FWF, then the consequence could be the degradation of consent of the slighted faction. This was a source of friction for TFE because of the disparity and quality of equipment (the FWF had one mine plow among all three of the factions), and levels of training (some FWF subordinate units were more efficient in completing tasks than others). At the same time, there were instances where the mission would not have been completed without the assistance of TFE forces. It was a leadership challenge to weigh task accomplishment vice maintaining impartiality. Therefore, the parameters of TFE assistance had to be delineated at the JMCs and coordination meetings.

Operation Joint Endeavor exposed US commanders to the concept of Joint Military Commissions (JMC) for the first time. Operations during OJE required substantial direct contact and political interaction between military commanders and faction military or political leaders. The aim of this interaction was resolving conflicts or securing the consent or cooperation of local leaders. This may require commanders to bring together protagonists to negotiate agreements or mediate disputes. In short, U.S. forces, even at the tactical level, found themselves engaged in a political process. In such situations, commanders could not expect to function successfully using purely military principles and logic. The ability to also manipulate a combination of political power and interests, cultural values, personalities and, perhaps, most important, perceptions, was critical to mission success. In OJE, TFE found that the JMC process was extremely valuable and an indispensable part of their mission to guarantee the peace in the former Yugoslavia.



Note: The term "Joint Commission" is used throughout this newsletter as a generic term to describe formally established bodies in which local representatives of different parties in the conflict meet under the implementation force's supervision to make decisions, be informed of implementation force intentions, and to resolve disputes.

The stability operations environment provided unique considerations for maneuver and mobility. Maneuvering and positioning for advantage, at times, entailed relatively little movement or relocation of forces after the initial positions and lodgement areas are obtained. The mobility challenges were much the same as in combat environments, with the exception that TFE forces were not only applying their own mobility assets, but also worked with faction forces and civil authorities to overcome mobility challenges.

In conventional combat, units change location with respect to each other or add combat power to mass their effects by changing force ratios. The early phases of OJE demonstrated that maneuver had very little to do with movement of forces. In OJE, following the entry operation, maneuver sometimes took the form of forceful discussion carried out at a JMC. Maneuver also took the form of movements and positioning to provide security to the opposing factions as they carried out the agreed-upon peace plan. "Positional advantage" sometimes was best be gained and retained by ensuring the factional perception that the TFE was an impartial enforcer of the GFAP.

The extraordinary number of mines in the theater caused mine-clearing and marking operations to have an influence on all levels of the operation. Mines were the greatest threat to force protection and the success of the mission. The ability of the TFE forces to conduct the mission without sustaining casualties communicated the proficiency and competency of NATO forces. Such a perception would be a major contributor to the successful fulfillment of the end state

One of the characteristics of OJE was that the FWF had been engaged in a war of attrition, fought from trenches and bunkers along battle lines that changed hands several times. The trench systems lined either side of the confrontation line in the ZOS and, between these trenches, were numerous mine fields and destroyed villages. The roads through the ZOS had been blocked by means of mine fields, craters, tank ditches, berms, and bunkers.



The minefields off the roads and between the trenches were very difficult to clear because there was often confusion as to the exact positioning of mines. Since the battle lines changed hands, the factions could not guarantee the location of the mines. They would not clear many of these fields, while TFE was only responsible for mine-clearance verification. Therefore, until a mine-clearing capability was contracted, there were many off-the-road regions within the ZOS that may never be cleared for civilian use. Although this does not hinder mobility on the primary routes, it does restrict any movement off of the roads if there was a need to deploy off of the route of march.

Regions of the ZOS that were not cleared hindered the continued dismantling of the FWF defensive positions. As long as mine fields remained uncleared, collapsing trenches and destroying bunkers could not take place. The uncleared areas would always be a threat to force protection as long as TFE forces had to continue operating in the ZOS.

The operational tempo (OPTEMPO) was extremely high. Partly, this was due to the phenomenon of simultaneous deployment and employment, requiring TFE to conduct the deployment concurrent to executing its mission of enforcing the GFAP. Essentially, units were arriving into their AOR, immediately commencing operations, while at the same time establishing their operating bases. This was a result of the stringent timelines of the GFAP. For example, by the time the brigade had deployed two battalions in the AOR, two weeks remained before the requirements of TOA + 30 had to be met.

The size of the observed brigade's AOR, the number of obstacles that had to be removed from the ZOS, and other operational requirements contributed to the high OPTEMPO. TFE units exceeded yearly OPTEMPO norms within weeks. By the end of January 1996, the one TFE unit had exceeded the average yearly OPTEMPO by 300 percent. In the early phase of the deployment, M2 and M3 usage was averaging as much as 100-130 Km/day/vehicle. Many of the wheeled vehicles had exceeded 3,000 miles since deployment. The demands of the exercise greatly exceeded the historical demands placed on the system during training.

Even with the friction caused by all these factors, the ZOS was established and the timelines were met. The success can be attributed to many factors to include excellent pre-deployment training at the Combat Maneuver Training Center (CMTTC), soldiers and leaders who were mentally and physically prepared for the mission, and the willingness of the FWF to comply with the GFAP. However, most important, TFE units executed the tasks in accordance with their training, adopted and refined TTP when required, and maintained flexibility in both planning and execution.☛



SECTION II

Planning ZOS Operations

TOPIC: Mission Analysis of the Peace Agreement.

DISCUSSION: As with any operation, the first step of planning is to conduct a mission analysis. For most stability operations, the start point for the mission analysis is the peace agreement. The GFAP outlined the broad tasks that had to be accomplished along with the timelines that had to be met. For example, the GFAP required that factions had to be separated and all mines, obstacles, and fortifications had to be removed, destroyed, or dismantled by TOA + 30 days. Several implied tasks were also identified which represented the details of establishing the ZOS (e.g., establish joint military commissions to determine FWF courses of action (COA) for compliance, establish checkpoints, etc.).

The verbiage of the GFAP was often confusing. This point probably became evident when attempting to understand the intricacies of ACFLs, IEBLs, and AOTs. However, the inability to comprehend the nuances of the requirements could result in mission failure.

LESSONS LEARNED

- ✓ **Commanders and staffs must conduct a thorough analysis of the peace agreement.**
- ✓ **Commanders should make the unit lawyer the resident expert on the peace agreement. In stability operations particularly, the lawyer is a combat multiplier.**
- ✓ **Develop and disseminate a document outlining the highlights and timelines of the peace agreement to subordinate leaders for quick reference.**



TOPIC: The Significance of JMCs in Planning.

DISCUSSION: The results of the JMCs were the cornerstones in developing the COA for establishment of the ZOS. The FWF leaders were required to jointly develop the COAs for meeting the requirements of the GFAP. The forum for the COA development was the JMC.

As already noted, the brigade had two weeks after deployment in the AOR before the first deadline of the GFAP. Within four days of the arrival of the initial two battalions (the third battalion did not arrive into the AOR for another month), the brigade commander held his first JMC. Because the commander deployed several weeks prior to the brigade's main body, he had the opportunity to discuss general concepts for separation of forces and establishment of the ZOS with the FWF leaders. This was instrumental in setting the stage for the JMC. At the JMC, the requirements of the GFAP were read and the commander told the factions to develop the COA. Within a couple hours, the plan for separation of forces and the initial tasks for establishing the ZOS was complete. Noteworthy is that the commander did require his staff to develop a generic COA if the FWF met an impasse during the JMC.

LESSONS LEARNED

- ✓ The factions must collectively develop the COA for compliance to the peace agreement - - the forum for the COA development is the JMC.
- ✓ When a JMC is being conducted - - that is your main effort!



***TOPIC:* The Results of the Coordination Meeting Provided the Specifics to Task Execution.**

DISCUSSION: Much like the JMC, the coordination meetings held between Company and Troop (TRP/CO) commanders with FWF leaders (many times brigade commanders) were key to planning and executing ZOS tasks. The broad tasks of compliance were agreed upon in the JMC (e.g., clearance of routes, removal of bunkers, etc.). However, the specifics of how those tasks would be accomplished were agreed upon during the coordination meetings. Initially, the TRP/CO Commanders met with the FWF daily. They would meet at a central location and discuss the plan for the day and then they would execute the missions. These daily meetings were time-intensive and often left only six to eight hours to accomplish the tasks. As a result, it was decided that the meetings would be conducted once a week. At the weekly meeting, the FWF were required to provide the TRP/CO Commander a schedule of tasks the factions would complete the next week.

LESSONS LEARNED

- ✓ The specifics of how the factions will execute the tasks of compliance are developed and refined in the coordination meeting.
- ✓ Require the factions to provide schedules of the tasks to be accomplished each week - - use the schedule and the peace agreement to hold them responsible.



TOPIC: Bottom to Top Planning.

DISCUSSION: The nature of operations in OJE entailed both decentralized planning and execution at the battalion and sometimes company level. The brigade's plan, quite often, was the compilation of sub-unit plans, developed by battalion staffs from information gained at daily coordination meetings with faction leaders. Battalions executed missions, more often than not, based on the brigade commander's intent, broad goals from Joint Military Commissions, and the results of their daily coordination meetings. Because the brigade staff was not always in "the information loop," supporting and tracking the missions could not be accomplished without the battalion's detailed input. The mission-tracking checklist (**Refer to Appendix D**), coupled with SITREPs and closing remarks reports, allowed the staff to identify support requirements, understand sub-unit missions, and track the battle.

LESSONS LEARNED

- ✓ Because of the coordination meetings held at lower levels, the specifics of mission execution often come from the subordinate units to the higher headquarters.
- ✓ The brigade staff is not always completely abreast of ongoing missions which were developed at the battalion level. Without the input from the battalions and the assimilation of the data at the brigade, the staff can neither support nor track operations.



TOPIC: Mission Tracking.

DISCUSSION: Because of the "bottom to top" planning phenomenon and the high OPTEMPO, it was essential that TFE units develop a system to track the many missions. On any given day a brigade would conduct up to 50 missions. Many times these missions were unrelated to one another and entailed small unit activities (e.g., bunker destruction verification, mine clearance, CA/CI/PSYOP assessments of local towns, and checkpoint operations). To facilitate tracking of battalion-level missions, the brigade required the battalions and squadrons (BN/SQDNs) to submit a daily report (**Refer to Appendix D**) of the unit's activities, to company level, for the following day's operations. The missions, by number and description, were recorded by the night battle captain and briefed during the morning staff update. The BN/SQDNs were then required to report every two hours on the progress of the missions (this included a negative situation report). The information from these reports was then annotated on the tracking worksheet. At mission competition, a closing report was required. The results of the missions (as per worksheet) were reported on the Operations/Intelligence (O and I) net for analysis by the S2. During the conduct of the mission, spot reports were rendered as required which further developed the operational picture of the AOR.

LESSONS LEARNED

- ✓ The ability of staffs to effectively track subordinate units' missions is tied to the planning process.
- ✓ Units must develop a simple system to track the various complex and sometimes unrelated missions that are characteristic of stability operations.



SECTION III

Establishing the ZOS

TOPIC: Separation of Forces.

DISCUSSION: The willingness of the FWF and the early deployment of TFE leadership to effect coordination with the FWF greatly facilitated the separation of forces. For the most part, the FWF were already separated. However, the major task of TFE units was to ensure that the FWF maintained the integrity of the ACFL ZOS and to ensure confrontations were avoided.

The FWF were required to provide TFE overlays with the location of all units, weapons and equipment, not only in the ZOS, but also within a 10-kilometer radius of the ACFL. The FWF were also obligated to notify TFE units when any personnel or equipment moved through the ZOS. Communication was maintained with FWF headquarters (HQ) and ultimately factional liaison officers (LOs) were located at the brigade HQ to facilitate this process. **NOTE: A TTP for separation of forces is outlined in Appendix A.**

LESSONS LEARNED

- ✓ To separate the forces, you must know their locations - - require the factions to provide maps and overlays of the disposition of their forces and equipment.
- ✓ Require faction LOs to collocate with your TOC. Establish a separate location for their working area, but ensure they are accessible.
- ✓ Ensure you have communications with the faction's headquarters.



TOPIC: Establishing Freedom of Movement.

DISCUSSION: Part of the implementation of the GFAP included ensuring freedom of movement through the ZOS. Freedom of movement was not solely for TFE convenience. The goal was to assist in providing the FWF with the ability to restore normal commercial and civilian traffic along the main highways of the country. All of this required an enormous effort on the part of the TFE combat soldiers. As a result, the initial focus of the brigade's efforts was to clear routes within the ZOS.

LESSON LEARNED: When establishing a ZOS, one of the initial priorities is to establish freedom of movement - - for both your force and civilian traffic.

TOPIC: Positioning of Forces.

DISCUSSION: Force positioning often became an issue during JMCs as it pertained to guaranteeing freedom of movement. It must be underlined that TFE forces would not be positioned by the faction forces, but in a manner that TFE commanders saw fit to accomplish the mission. Primarily, the faction forces were concerned with the security of one of their villages. Often these villages were on the confrontation line or just on the other side of the confrontation line.

The faction military leadership tried to barter deals. They would offer to pull back on the condition that we establish checkpoints. Initially, this sounded correct. Part of the TFE mission was to establish checkpoints to guarantee freedom of movement across the ZOS. It quickly became obvious that the intent of the factions was to create a picket line with TFE forces because they had doubts in the security of their people. TFE commanders were forced to face this issue at a JMC. The result was to tell the factions that the TFE troops were not theirs to command.

TFE had only a finite number of forces, and placement of those forces depended on several factors. TFE commanders had to place checkpoints where they could guarantee freedom of movement and at the same time be visible to the local population. This could not be accomplished with soldiers positioned in an isolated area with any tactical significance.



The placement of TFE forces could be accomplished in many ways. The key to the operation was visibility. Soldiers had to conduct day and night patrols along all routes and across country that were cleared. TFE forces manned checkpoints along the primary commercial and civilian traffic routes to ensure that freedom of movement was retained once it was established. Key intersections, interchanges, and bridges had to be secured and retained by the TFE elements.

LESSONS LEARNED

- ✓ Placement of forces must perform two roles - - ensure freedom of movement and maintain visibility.
- ✓ Placement of forces must help build a feeling of security for the population and the armies of the factions to establish the environment for separation of forces and a return to peace.
- ✓ Placement of forces must not be tied to the outpost concerns of the faction military. If this happens, we lose the initiative.

TOPIC: Route Clearance in the ZOS.

DISCUSSION: Route clearance or "ZOS Breaching" was the technique used by TFE units to clear routes in the ZOS to facilitate freedom of movement. TFE TRP/CO commanders would link up with their FWF counterparts and coordinate the tasks to be accomplished from the task schedule agreed upon at the weekly coordination meeting. Linkups would take place on both sides of the ZOS with the respective FWF leader. FWF soldiers (overwatched by TFE units) would begin clearance from their side, working toward the ACFL. It was essential that the clearance be conducted simultaneously because the FWF were concerned that their factional counterpart was not executing their responsibilities in the clearance. **NOTE: The detailed steps and performance measures are outlined in Appendix B.**

LESSONS LEARNED

- ✓ To the greatest extent possible, make the factions do the work. Demonstrate impartiality when providing assistance - - identify the requirements in the coordination meeting with all factions present.
- ✓ Your responsibility is to *verify* that the factions complete the task to standard and to provide security to prevent a confrontation.



TOPIC: Proofing Routes.

DISCUSSION: Ideally, the FWF would have been responsible to both clear and "proof" the routes, ensuring that the area was free of mines. However, as already indicated, the FWF did not have the appropriate equipment (e.g., mine plows) to effectively complete the task to standard. Consequently, TFE units were often required to proof the routes. After the FWF completed clearance of the route, the route was then usually proofed by an M1 tank with a roller.

Proofing could be a potentially dangerous business given that three mine detonations occurred in the brigade's sector during proofing missions. Nonetheless, the impact of these detonations was minimized, resulting in no injuries to soldiers and minimal damage to equipment because of the TTP employed by TFE units. These TTP were developed and refined as a result of a highly successful after-action review and lessons learned program adopted by TFE.

LESSONS LEARNED

✓ Mines deteriorate over time and perform unpredictably. In two incidents of detonations, mines did not function as they were designed nor as they should have given the specific incident scenario. In one incident, the mine was crossed by an M1 with a roller at least four times. It did not detonate until a much lighter CEV traversed the mine. On the other mine detonation, the mine had been traversed by an M1 with a roller twice with no reaction. It was the third crossing that initiated the mine reaction. Both of these events indicate that we cannot absolutely depend upon published technical data.

✓ Terrain affects proofing, specifically road conditions. In each detonation, the roads were unimproved (not paved). The brigade has dictated that no unimproved road will be traversed by a wheeled vehicle without the expressed permission of a battalion commander.

✓ Environmental conditions affect proofing. In each of the incidents, the environmental conditions may have contributed to the event at that moment in time. For example, light or soil conditions due to time of day or temperature. However, the bottom line is that the environment can neither facilitate nor negate the issue that there is an estimated six million mines and countless UXOs in theater. Prudent and deliberate risk analysis in concert with mission development must be sustained.



✓ Require the factions to provide minefield records. In all but one of the minefield incidents, minefield records, with varying degrees of detail, were being translated. The Division's Mine Action Center provided an extremely valuable tool to further negate mine incidents in known minefields. However, there were countless minefields and lone mines in addition to the thousands of unexploded munitions and miscellaneous ordnance that litter the countryside. This was TFE's greatest threat. It was soon discovered that the premier defense against unrecorded mines and other ordnance would be trained and vigilant soldiers.

✓ Some new technological advances, not available to the unit at the time, could prove to be useful in the future. These technologies include:

The M60 Chassis which could be used for remote controlled clearing (proofing) operations.

The Panther which is a remote-controlled M60 blade-tank chassis.

The Vallon Detector is mounted on a remote-controlled 5-ton or HMMWV. The detector is tied into the brakes to stop the vehicle upon detonation of a mine.

✓ Mine plows have potential in facilitating the proofing process. Because of the composition of the soil on unpaved roads and the deteriorated state of some mines, mine rollers often force mines into the ground rather than detonating them. Most mines employed by the factions function optimally buried from zero to 6 inches (the exception is the TMM 1 which can function buried up to 59 inches). The mine plow moves up to 12 inches of dirt. Consequently, mine plows may be the best option for clearing/proofing. However, mine plows will have an adverse impact on the conditions of the roads which would require a considerable engineer effort to reverse.



TOPIC: Marking the ZOS.

DISCUSSION: The boundaries of the ZOS had to be clearly marked as defined by the maps and documents agreed to as a part of the GFAP. This was accomplished through the supervision of factions and TFE units marking those boundaries specified in the manner outlined. At the end of the process, both the factions and TFE units would be able to clearly identify the respective lines and zones, the IEBL and ACFL ZOS.

Marking of the zones and lines was at times selective. Selective marking was defined as where lines cross a road, track, or rail line. Attempting to mark the entire extent of the line was often unnecessary and logistically prohibitive. The zones were marked in frequently trafficked areas so that the entities and TFE could rapidly and definitively establish their locations.

The marking system was comprised of temporary and semi-permanent markers. As a rule, where the ACFL and IEBL coincide and no adjustment was necessary, and where suitable survey/verification means exist, semi-permanent markers would be used immediately. The remainder of the lines was marked with temporary markers since the lines shifted during the implementation period.

For OJE, the ACFL ZOS had to be marked by D+30. Marking was done where roads went through the ZOS. Markings at each location consisted of florescent orange-tipped U-shaped pickets on both sides of the road. The ACFL ZOS pickets had the top 12" painted florescent orange. The ACFL itself was marked with pickets that had the top 12" painted florescent orange, a 12" gap and another 12" of florescent orange (see enclosure). Areas other than roads that required marking were marked in a similar manner as directed by local TFE/FWF commanders. All markers had to be positioned so they were clearly identifiable (100m in daylight) from both directions of travel.

The IEBL ZOS was selectively marked with semi-permanent survey markers, as procured and provided by Headquarters, Allied Rapid Reaction Corps (ARRC). They were 2-meter high robust orange survey poles, capped with a triangular orange top and secured to a steel base which was semi-permanently attached to the ground. Where the ACFL ZOS line and the IEBL were close together, the Military Commission process was used to achieve agreement on where to establish the outer line only as a common ZOS line. The same requirements for positioning the ACFL markers applied to the IEBL markers.

All entities were required to mark the ACFL, IEBL and the respective ZOS lines under IFOR supervision. Upon activation of the IEBL, all the ACFL ZOS markings had to be removed, painted over, or erased.



TFE provided the material to the entities to mark the various lines and zones. The task force initially had more than 500 liters of orange paint and 500 paint brushes available for distribution. Brigades were authorized to draw the following quantities of supplies: 100 gallons of paint, 100 brushes, and 500 pickets.

LESSONS LEARNED

- ✓ **Standardize the markers - - ensure they are clearly visible.**
- ✓ **Anticipate the supply demands for marking materials.**

TOPIC: Minefield Marking.

DISCUSSION: The brigades issued the Hand-Emplaced Mine-Marking System (HEMMS) kits to the former warring factions to mark minefields in TFE AOR.

According to the GFAP, the FWF were responsible for marking and clearing minefields. In almost all cases, they did this to the best of their ability, but they did not have the resources to properly mark minefields. In some cases, they marked minefields with crossed branches, stacked stones, and other various non doctrinal means. The decision was made to issue the HEMMS kits to the former warring factions to establish an easily recognizable standard for marking minefields. The standard HEMMS kit consists of: 64 X Aluminum HEMMS poles, 2 X Rolls of red marking tape, 64 X Red "Mine" signs, a light set to attach to the top of the poles, and pole drivers. The kit can mark approximately 650 linear meters of minefield. With the amounts of minefields located throughout the AOR, TFE also augmented the HEMMS kits with rolls of barbed wire and standard pickets in an attempt to make up for the shortage of HEMMS kits.

LESSONS LEARNED

- ✓ **While belligerent forces may be willing to comply with provisions of the Peace Accord, they might not have the resources to make minefields according to U. S. "Standards."**
- ✓ **Material may have to be given to them to help them accomplish their mission. A standard, easily recognizable by all sides, mine-marking system is a must in this environment.**



TOPIC: Tracking the Progress.

DISCUSSION: During OJE each faction had to implement very specific requirements under the GFAP mandating the operation. As the factions began to meet the provisions of the peace agreement, a systematic method of tracking compliance was required to provide feedback, monitor progress and to assess deficiencies of each faction commander.

TFE developed a simple system to report the status of the peace agreement compliance within the zone of separation (ZOS). The system delineated segments of the ZOS and established a reporting system to track the status of routes, separation of factions, removal of mines, and marking of the ZOS and other boundary lines.

The ZOS was divided into blocks based on checkpoints. A ZOS block was defined in length as the area between two adjacent checkpoints and further defined in width by points located on each two-kilometer line running parallel to the ACFL and the IEBL. For simplicity, the block was defined by the lower number checkpoint. For example, the block of land between checkpoint Z22 and Z23 was referred to as ZOS Block Z22. The land between ZOS checkpoint Z61 and Z62 was referred to as ZOS Block Z61.

Each brigade was required to report the status of each ZOS Block using a red, amber, green protocol. Green reflected full peace agreement compliance (90 percent or more completed and expected to be completed within required timeframes). Amber reflected partial compliance, but the factions were well underway with the assessment that they are willing to comply. Red reflected a complete noncompliance with the requirements of the GFAP with no willingness to comply.

The following specific color criteria were used to report the status of each ZOS Block:

● ***Routes.*** The ZOS Block was rated green for routes if 90 percent or more of each Task Force Eagle-designated crossing site, and each crossing site designated by the IFOR sector brigade commander, was free of all mines, obstacles and faction check points. The block was amber if efforts were underway and there was an assessed willingness to comply. The block was red if it was assessed that there was no willingness to comply with the requirements to clear the routes within the block.

● ***Separation.*** The ZOS block was rated green for force separation if 90 percent or more of the faction units and their military weapons were withdrawn from the ZOS. The block was amber if separation/withdrawal was ongoing and there was a willingness to comply. When a faction(s) exhibited no willingness to comply with the separation requirement, then the block was rated red.



● **Mines.** ZOS Blocks were rated green for mine clearance if they had 90 percent or more of the mines and unexploded ordnance (UXO) marked and being cleared. The block was amber if there were known mines or UXO being marked/cleared and there was an assessed willingness to comply. If there was no willingness to comply with the requirement to clear/mark the mines and UXO, the block was rated red.

● **Marking.** The status for the selected marking of the ACFL/IEBL within a ZOS block was not reported as a color status. Instead, units were to report the number of stakes emplaced within the ZOS block.

The division required the brigades to submit an initial ZOS block status in their commander's assessment report (ASSESSREP).

An example of the ZOS block report status is shown below:

<i>ZOS BLOCK</i>	<i>ROUTES</i>	<i>SEPARATION</i>	<i>MINES</i>	<i>MARKING</i>
Z30	1) GREEN	2) AMBER	3) AMBER	4) 12
Z31	1) GREEN	2) GREEN	4) GREEN	4) 36

After the initial status was reported, brigades would only submit changes to each ZOS block in the ASSESSREP. Commanders were required to comment on any area rated other than green.

LESSONS LEARNED

- ✓ Units must develop a system to track the progress of separation of forces.
- ✓ When dividing the ZOS into blocks, ensure they are separated by distinct terrain features, e. g., roads.
- ✓ Any downgraded status may be an alarm for noncompliance.



TOPIC: Battle-Tracking the Status of Cleared Routes.

DISCUSSION: As the sector developed and the number of reconnoitered and cleared routes increased, it became necessary to develop a plan for maintaining the status of all of the routes. It was necessary to guard against the factions returning and relaying mines. It was also necessary to declare certain routes open only to one-way traffic due to the narrowness of the roads. Other routes may have only been usable for certain types of vehicles due to battle damage (e. g., tracks only or tactical vehicles only). Some routes had to be blocked off completely until engineer units could restore the surface of the road. For whatever reason, the mission of the TFE soldiers initially was to enable freedom of movement through the ZOS. Patrol plans had to be developed that would gather the necessary information on routes after they had been cleared to minimize collateral damage from military traffic while ensuring security for civilian and commercial traffic. The information gathered from the reconnaissance plan had to be analyzed daily, collated and sent up the reporting nets to higher headquarters. It had to then be made available for all units that use the roads in sector so that further damage to roads or equipment could be avoided.

LESSON LEARNED:

Develop patrol plans to confirm or deny the status of routes.

AN EXAMPLE OF DECISIVE RESPONSE

One of the faction leaders asserted that he would order his soldiers to detain any TFE element that was identified escorting another faction's soldiers through the ZOS. Though agreements were made during a JMC for coordinated escorts, the remark was made to a CA team who communicated the message to his battalion commander. This resulted in a "show of force" by the commander.

Upon receiving the information from the CA team leader, the battalion commander assembled a Bradley platoon and coordinated for a Scout Weapons Team (AH1 and OH58) to move to the location. A six-BFV QRF was placed at REDCON 1 and staged 2 kilometers from the faction HQ awaiting orders. He notified the CA team leader that he, along with his escort, was enroute to meet with the faction commander. With the air presence on station, the commander, along with the M2 platoon, arrived to the faction headquarters to discover the commander had left the area. The TFE battalion commander communicated to the faction LO on site, that such action by the faction would not be tolerated. Later that day, the faction commander told the brigade commander that there had been a misunderstanding and that TFE soldiers would not be detained.



SECTION IV

The Verification Process

TOPIC: Verification and Measuring Success.

DISCUSSION: The process of verification of compliance with the GFAP was at times impeded by the magnitude of the number of the obstacles and fortifications in the ZOS and the combat power available to accomplish the mission. To accomplish the tasks, the minefields, bunkers, and trenches had to be identified first. Second, the factions required the manpower and equipment to execute the missions. Finally, U.S. forces required the personnel to verify the process while concurrently executing the other missions inherent to the operation.

Although the factions provided the brigade overlays of the fortifications and obstacles, these locations were not always reliable. Consequently, the responsibility remained to confirm the locations. It was argued, for instance, to verify the dismantling of bunkers, the unit should know the grid and numbers by sector. The grid and numbers should be documented and then annotated as "dismantled/destroyed" sequentially as the factions completed the task. At first glance, this seemed a reasonable technique to measure the success of verification tangibly. However, as already noted, it was estimated by the brigade S2 that there were conservatively more than 1,300 bunkers and over 200 kilometers of trenchlines.

To assist in confirming the numbers, aerial reconnaissance was conducted over the ZOS with AH 1 and OH 58s. These reconnaissances were generally effective in identifying bunkers and trenchlines. However, grids were determined using PLUGGERS on the aircraft which provided approximate, but not completely accurate, locations (determining the locations on the ground from the air has a certain degree of error factor). Ideally, the OH 58 should have been equipped with PADs to laze the target for a more definite grid location. Also, the Scout Weapons Team has limited station time. The problem was compounded by the fact that the brigade's air assets were also tasked to conduct reconnaissance of another brigade's ZOS. Because of the limited station time, the reconnaissance was not nearly as detailed as it could have been. In addition, OH-58s and AH-1s do not have video recording capability. The brigade could have conducted a much more thorough analysis of the ZOS and completed a much more thorough debrief if helicopters had video-recording capabilities.

Confirming the exact grid locations of the obstacles and fortifications by ground forces would have exacted more manpower (read combat power) than was available to accomplish the task in a timely manner.



LESSONS LEARNED

- ✓ Identify definable and attainable measurements of success for separation of forces and establishment of the ZOS - - *track the progress and inform the factions of their success. If they are not meeting the requirements, hold them responsible!*
- ✓ Employ air assets in the verification process. Ensure they are equipped with positioning systems and have a camera/video capability.

TOPIC: The ZOS Reconnaissance Board.

DISCUSSION: One of TFE's primary missions was to conduct ZOS reconnaissance to confirm or deny faction compliance with the peace accord. TFE initiated a ZOS reconnaissance board, modeled roughly after a targeting board, whose function was to synchronize intelligence information, reconnaissance assets, and verification requirements into a workable, comprehensive ZOS reconnaissance plan.

One of the unique and sensitive aspects of stability operations can be a requirement to verify the extent of treaty compliance by various factions. TFE leadership realized the necessity early on of ensuring the ZOS reconnaissance was a coordinated effort among air and ground assets, division and maneuver brigade elements, and U.S. and allied forces.

The task force commander designated the ADC-M as chairman of a ZOS reconnaissance board, with the DFSCoord as board director and the G2, G2 collection/production, G3, G3 operations/air, weather, and brigade liaison officers as members. The board met daily at 0815 with the goal of planning reconnaissance missions 96 hours out. The group developed a ZOS reconnaissance matrix (see attached) which listed each ZOS block, the possible items of interest in each area, and the assets planned to reconnoiter each block, to include Army aviation, ground reconnaissance, observation points, TAC RECCE/AIR, SIGINT/IMINT/HUMINT, and SOF. The goal was to reconnoiter each ZOS block every day with a mix of assets, and to vary the reconnaissance in time and duration to avoid predictability.

First, fusing current intelligence and operations in a timely manner was difficult, especially at the beginning of the process. The board meeting would produce a tentative FRAGO by late AM, but the current day's reconnaissance results were not available until approximately 1800. Often this caused major changes in the following day's plan, and the maneuver units executing the reconnaissance often received last-minute changes hours before execution. Added to this were the normal difficulties of getting several key staff members to yet another meeting, as well as the challenge of integrating valuable, but dispersed, SOF assets. As the board drew closer to its goal of issuing a FRAGO 48 hours out, the process smoothed somewhat. Second, there was an initial disconnect on whether the process should be top or bottom driven.



TFE was pressing the brigades for information on how much of their ZOS portion they could cover with organic assets, while the brigades were clamoring for the plan on the use of TFE resources. Finally, TFE players had to adjust their mindset. The targeting board format and the "decide, detect, deliver, assess" methodology was useful as a starting point, but many other factors came into play in the TFE's stability operations reconnaissance mission. Reconnaissance is fundamentally different from targeting, which in this scenario involved changing perceptions. Board members had to consider political ramifications, coalition partners' input, regional history, and specific ROE every time a sensitive situation arose.

LESSONS LEARNED

- ✓ Apply the same principles of targeting when developing your ZOS reconnaissance plan.
- ✓ Ensure key staff members are integrated into the process.
- ✓ Ensure FRAGOs, which result from the meeting, are disseminated in a timely manner.

TOPIC: The Collection Plan and the Verification Process.

Note: *The 10-kilometer zone mentioned in this observation was not a ZOS. However, the TTP developed by the brigade for verification of FWF compliance with the reporting requirements merit discussion because they may be useful in future operations.*

DISCUSSION: The brigade's collection plan, developed from known faction locations, was oriented on verifying continued compliance to the peace agreement through reconnaissance and site inspections. In accordance with the GFAP, the factions were required to provide the brigade with overlays of their equipment and weapons collection points within a 10-kilometer radius of the zone of separation. The brigade S2 compiled this information on a database with the grid, amounts and type of equipment, the faction organization, and the most recent date it was observed. This information and the overlays were passed to the G2 for incorporation into the division collection plan. These locations, along with additional sites confirmed by reconnaissance, were designated as named areas of interest (NAIs). From the division collection plan, the brigade was required to reconnoiter the designated NAIs to confirm or deny that the equipment/weapons, by number and type, were still being maintained at that location. In turn, the brigade S2 developed a collection plan which contained a total of 81 NAIs, including those tasked by division. In the brigade plan, units were tasked to conduct either a visual reconnaissance ("drive-by") or a site inspection.



The NAIs were prioritized by number 1 through 4:

Priority 1 - Must be reconnoitered every	5x days
Priority 2 - Must be reconnoitered every	7x days
Priority 3 - Must be reconnoitered every	10x days
Priority 4 - Must be reconnoitered every	14x days

(There was a period of increased tension between the FWF and TFE which resulted in collection sites being reconnoitered every two days.)

To facilitate this process and focus the collection and verification procedure, the brigade S2 developed a system to coordinate the effort over time with a "10-day forecaster." This provided the day-by-day reconnaissance tasking by unit. However, the focus of the undertaking remained the collection plan with associated PIR, SIR, NAIs, and SOR. If it was determined that factions had moved equipment or increased amounts were identified at the collection point, a unit would be tasked to notify the collection site commander that he was delinquent in complying with the peace agreement.

This procedure assisted in the verification process. Although grids of collection points provided by the factions were sometimes 500-800 meters off, reconnaissance confirmed the locations. This provided the brigade S2 with fairly accurate information to begin his collection planning. With this information, the requirement remained to verify the faction's continued compliance.

Any change in the composition or disposition of weapons or equipment could be an indicator of noncompliance. Because of the vast number of collection points, there was the potential of focusing the entire intelligence collection effort on these sites. This put a great demand on the units and possibly deterred reconnaissance and surveillance planning to identify other significant faction activity. However, the plan developed by the S2 to collect and verify, by priority, over time ensured that units were unrestrained to conduct other reconnaissance missions as required.

The procedure was also effective in facilitating "stability engagements." Units employed combat camera crews to photograph equipment at the sites periodically. Often changes in the composition of equipment were identified. If the faction had not notified IFOR of the changes, the photographs were used as a tool to demonstrate noncompliance and force the factions to submit reports and updates in a more timely manner.

LESSONS LEARNED

- ✓ **Designate key faction locations as NAIs to facilitate the verification process.**
- ✓ **Develop a system to manage the vast number of NAIs. *Ensure units do not become overtasked.***
- ✓ **Consider employing combat camera crews to assist in the verification process.**



TOPIC: Employment of the AC-130 in Verification and ZOS Enforcement Missions.

DISCUSSION: A battalion ALO coordinated for an AC-130 to orbit the unit's area during hours of darkness to identify faction movement/violations. Both ground forces and an F-18 were also tasked to be prepared to react to any AC-130 sightings.

The battalion ALO coordinated with the AC-130 and night vision-equipped-F-18s for direct communications during a night mission. The concept of the operation required the AC-130 to be on station for one hour. The ALO, battalion commander and S2 positioned themselves at a central location. It was coordinated for the AC-130 to fly over this location and for the ALO to mark the position with an infrared (ir) strobe to identify the start point (as the hub of a spoke system). From his position, the ALO provided the AC-130 with a heading and a distance to known unit checkpoint grids. Ground forces at these locations also had ir strobes and were required to shut down their vehicles to prevent additional heat signatures. The AC-130 was directed to orbit the area to identify movement. The ground forces were prepared to react to the AC-130's sightings via communications through the battalion commander. In addition, F-18s would be employed as a redundant means for identification and as a show of force if necessary.

The ground forces did not have glint tape which would have facilitated distinguishing friendly units from factions. Because of restriction from the Combined Air Operations Center (CAOC), the AC-130 could not fly close enough to the Croatian border to observe two critical checkpoints. This coordination must take place well before execution of the mission. The AC-130 is designed to observe pinpoint targets. The AC-130 takes up to 15 minutes to effectively establish its pattern, resulting in slow movement from point to point. This significantly reduces the amount of work that can be accomplished in the one hour of station time. The unit should request three hours for time on target. Further, the unit should reduce the number of targets to ensure thorough reconnaissance of the AOR.

LESSONS LEARNED

- ✓ The AC-130 is extremely effective in the verification process.
 - ✓ Ensure you have good communications with all assets - - *conduct a COMEX and rehearsal.*
 - ✓ Ensure ground units are equipped with GLINT tape and an ir capability for visual identification.
 - ✓ Coordinate the effort with night vision-equipped F-18s.
 - ✓ Consider that it takes up to 15 minutes for the AC-130 to establish a pattern.
- Request sufficient time on target and make sure the number of targets is manageable.*



TOPIC: Employment of the Joint Surveillance Target Acquisition Radar System (JSTARS) in the Verification Process.

DISCUSSION: The brigade was supported by one Ground Station Module (GSM) which received JSTAR information. Initially, the JSTARS monitored large sectors, making analysis of specific areas difficult. As a result, the S2 narrowed the focus of the JSTARS by orienting the system on named areas of interest (NAIs) for specified periods of time. He also provided the GSM operators, who also performed limited analysis, PIR and likely patterns to observe.

However it was soon discovered that JSTARS had certain limitation (particularly in this environment) which preclude its employment as a stand-alone collection asset.

Because civilian traffic was mixed with military movements (and the fact that the military sometimes uses civilian vehicles), it was difficult to distinguish the significance of large convoys which were detected by the Moving Target Indicator (MTI). Although the Synthetic Aperture Radar (SAR) was used to further refine images of vehicles within the convoy, definite confirmation of the types of vehicles could not be obtained to the degree of detail required.

The SAR was used to identify some trenchlines within the zone of separation (ZOS), but identification of the positions requires close observation and analysis. The SAR imagery does not provide the degree of resolution required for easy recognition of a target.

JSTARS information is provided to the GSM operators in real time. However, GSM was positioned apart from the tactical operations center (TOC) and the S2 and, to date, an effective communications link to the operations center had not been implemented. The Remote Work Station (RWS) was scheduled to be fielded but had not yet arrived to the unit. The RWS would provide the BDE a station in the TOC which gives the operators working the RWS the ability to access the same information as the GSM operator.

Although JSTARS exhibited these limitations, the brigade experienced several successes with the system. These successes included:

Identification of large movements moving out of towns which were to be transferred between factions. After the S2 was alerted of the movements, Civilian and Military Operations personnel were sent to that location to determine the reasons.

In addition, JSTARS confirmed a ferry site which was being used to move military equipment. The site was designated as an NAI for a period of several days, and the MTI detected the movement across the river.

Two - three tanks were identified in an assembly area by a Fixed Target Indicator (FTI) and confirmed, to some degree, by a SAR photograph.



A railhead, where armored vehicles were being loaded, was identified in the vicinity of a key town.

The JSTARS database also confirmed the exact date movements commenced.

LESSONS LEARNED

- ✓ **Focus JSTARS with NAIs (or radar areas of interest - - RAIs)**
- ✓ **Ensure you have a good communications plan to relay information from the GSM to the brigade S2. Incorporate the RWS and Trojan Spirit, if they are available.**
- ✓ **Have redundant means to confirm or deny JSTARS information.**
- ✓ **JSTARS information is very effective when it is cued by another asset, e.g., aerial platforms and HUMINT.**
- ✓ **JSTARS could also be employed to facilitate force protection by monitoring the movements of IFOR vehicular convoys or other tactical movements.**

TOPIC: Surveillance of the ZOS.

DISCUSSION: The ZOS had to be patrolled daily and the units in sector had to verify that all the factions remained clear of their former positions and that the zone was weapons free and allowed freedom of movement for civilian traffic. This was a herculean effort given the size of the sector and the number of other tasks associated with the mission. The roads and trails were numerous and the distances were vast, exacerbated by the poor conditions of the road network. The GFAP required TFE to man certain fixed checkpoints. In a JMC, the factions also agreed upon joint patrols within the ZOS. The brigade determined that there was a need to develop a standard border surveillance plan. Based on the former plan for observing the DDR/Czech border, the intent was to establish a series of checkpoints along the ZOS. There was at least one base camp in each TRP/CO sector of the ZOS. Each TRP/CO sector would have at least one permanent checkpoint along the primary roads. More would be added if necessary.



The zone would be patrolled daily by the air assets. The air patrols would be conducted at least once during daylight and once after dark. They would patrol the entire trace of the ZOS unless there was a specific region which required heavy scrutiny. Ground Patrols would go out daily and would be random in nature. Some patrols would be mounted and some will be on foot. The plan required both day and night reconnaissance. The mounted patrols were assigned a series of checkpoints. They approached each check point carefully, stopped and dismounted, observed the region for any changes since the last patrol, reported any observations, mounted up, and departed for the next check point. The vehicles would have a specified time between check points and the base would monitor reporting to track progress and identify any possible problems in the zone. Ground patrols were conducted in much the same manner. (As of this report, the details for the joint reconnaissance with the FWF had not been worked out.) The entire zone was covered by observation and patrol within a set timeframe, for example, 48-72 hours.

LESSONS LEARNED

- ✓ Units must develop detailed reconnaissance and surveillance plans to facilitate the verification process.
- ✓ These plans should include both mounted and dismounted patrols during day and night conditions.
- ✓ Well-defined control measures and a detailed communications/reporting plan are key to successful patrolling.
- ✓ Ensure the soldiers and leaders understand the ROE. *Soldiers should not have a question in their mind on actions if the patrol makes contact with the FWF in violation of the peace agreement.*

A NON-LETHAL ENGAGEMENT

Early in the operation, a young troop commander secured the release of seven illegally detained civilians. The incident began with a civilian coming up to the troop command post. The civilian reported that seven of his friends had been detained by a policeman of another faction for violating their territory. When the troop commander personally investigated the report, he was accompanied by a platoon of M3A2 Bradleys and an interpreter. He found that the police wanted payment of DM100 for the release of each civilian as a "fine." The troop commander pulled out a copy of the GFAP, translated into Serbo-Croatian, and pointed out the appropriate clause that guaranteed freedom of movement for all civilians. The combination of being able to support his demand for the civilians' release with a written copy of the peace agreement, and the demonstrated, credible potential to apply force, won the day. The civilians were released and escorted back to their side of the ZOS by the troop commander.



TOPIC: Night ZOS Observation TTP.

DISCUSSION: TFE units faced the problem of ensuring the vacated positions within the ZOS were not reoccupied at night or in other periods of limited visibility. Dismounted patrols during the day were conducted by walking through the trench lines and bunker positions with a guide from the factions. The intent was to show that the FWF forces had evacuated the trench lines. However, there were reports that some of the bunkers along the trench lines contained loaves of bread and had blankets folded on the wooden bunks. This resulted in the decision to develop a plan to verify that the bunkers were actually vacated during the night. Foot patrols through the trenches would be dangerous at night. Nonetheless, there was the alternative to patrol the routes with M3s and patrol above the ZOS with scout-weapons-teams. Through the use of passive and thermal optics, the patrols could determine if there were any unusual heat or light sources in the "vacated" regions. If personnel were identified, it would become necessary to confront the factions with the information and show them that their violations were being monitored.

LESSON LEARNED: Use thermal optics to observe for heat sources in regions that are to be vacated by the warring factions. Thermal optics can pick up even the slightest heat signatures. The high power capabilities of weapons systems thermal optics makes it possible to verify the source if it ever unmask from cover, i.e., a house. Aircraft flying over the trenches and bunkers can also identify small light sources from cigarettes or flashlights and can pick up thermal sources such as people or stoves.



SECTION V

Controlling the ZOS

Once the ZOS was established and the verification process was well in progress, TFE forces had to control the ZOS to prevent violations of the GFAP. Particularly, it was imperative that the ZOS remained weapons free and unauthorized movement of FWF soldiers and equipment was denied. With the exceptions of a few minor instances of noncompliance, the FWF observed the policies agreed upon in the JMCs and those outlined in the GFAP. However, armed civilian groups (defined as two or more personnel with weapons) and the civil police (they could not have weapons in the ZOS until all prospective police were registered) presented unique challenges to TFE soldiers. These challenges were compounded with the requirement to detain suspected war criminals. An FWF soldier was detained for several hours, only for the TFE unit to discover that one letter in the soldier's last name was different from the actual war criminal's name.

ALL IN A DAY'S WORK

● *A unit reported that two civil police attempted to pass through a checkpoint in the ZOS. One had one 9-mm pistol and the other had an AK-47 with a magazine. The soldiers at the checkpoint confiscated the weapons and let the police continue.*

● *A unit reported that two civil police were stopping traffic in the ZOS. The unit told them that they could not stop traffic in the ZOS because it impeded movement along the route. The unit escorted the police out of the ZOS.*

● *The military police (MP) inspected a faction police station in the ZOS revealing 22 weapons (assault rifles and shotguns) and live ammunition on site; some weapons were loaded. The MP confiscated the weapons and ammunition and a CA representative contacted the mayor to explain our actions. When MP arrived at the police station, there were three policemen there; by the time the inspection was complete, there was a total of twelve police on the site. The police chief was upset but did not interfere with the inspection or with the confiscation of the weapons.*

● *The MP also spoke with the police chief at the police station in the ZOS. The police chief reported to the MP that three faction soldiers were stopping civilian vehicles and demanding money on the northern side of the ZOS on the main route through the sector. A unit went to investigate the checkpoint but did not find any soldiers.*

● *A unit reported a civilian police checkpoint on the 2km ZOS line. The unit instructed them to leave three times and, after several hours, they finally departed the ZOS.*

● *In total, 24 weapons were confiscated in this 24-hour period.*



TOPIC: Military Police Interaction with Armed Civilian Groups and Weapons in the Zone of Separation (ZOS).

DISCUSSION: The direct support military police of the brigade had an active role identifying armed civilian groups and weapons in the ZOS.

The Military Police Company was in direct support of the brigade. Most of the missions that the military police performed involved security in or around the Brigade Operating Base (BOB). In the brigade, entry in and out of the ZOS was controlled mainly by the MP manning traffic control points (TCPs) along main supply routes (MSRs).

Accordingly, the military police were actively involved in identifying armed military and civilian groups that, according to the GFAP, had to be disarmed. Per the COMARRC's guidance, the only authorized weapons in the ZOS (other than IFOR weapons) would be sidearms carried by legitimate police. The military police and civil affairs officer assisted the brigade in identifying those legitimate police who serve their respective communities within the AOR. Military police manning the TCPs along MSRs had lists with the official registered names (approved by the brigade commander) of local police officials.

Military police challenged anyone who was not on the approved lists and was in the possession of a weapon. The confiscation of any weapons was reported immediately to higher headquarters. After a serial number inventory had been accomplished, the confiscated weapons were processed through military police channels.

LESSON LEARNED: A proactive and positive working relationship between U.S. military police and host nation local civilian and military police can be beneficial to all parties involved.



TOPIC: Storage and Processing of Confiscated Weapons and Ammunition.

DISCUSSION: Confiscated weapons and ammunition in the TFE AO were stored and processed through military police channels. COMARRC's guidance was that civilian and military groups seen by IFOR patrols would be challenged and their weapons confiscated and destroyed. This policy was enforced by TFE soldiers throughout the entire TFE AO and ZOS.

TFE's guidance was that the confiscation of any weapons should be immediately reported to higher headquarters. A serial number inventory was to be made and the weapons would be processed through military police channels.

Further TFE guidance was published in fragmentary order (FRAGO), which included the following:

All confiscated weapons are treated IAW USAREUR General Order No. 1 - no war trophies.

Weapons must be held for a minimum of 30 days to allow local/military police follow-up action and requests for forensic investigations to be forwarded to IFOR.

TFE Commander decides on any dispute involving a weapon in IFOR custody.

Units will report weapons confiscated in daily commander's assessment report.

After 30 days, confiscated weapons will be destroyed and then buried.

Various weapons and ammunition belonging to the FWF were confiscated by TFE soldiers. The direct support military police units for each brigade, were given the responsibility for properly inventorying and processing this equipment. When weapons and ammunition were confiscated, the capturing unit notified the respective brigade direct support military police unit to arrange for transfer of custody.

All confiscated property was jointly inventoried by the capturing unit and military police representatives. Model and serial numbers, quantity, lot numbers, and the general condition of the property were recorded on a DA Form 4137, Evidence/Property Custody Document. The name of the capturing unit and military police representatives and the purpose of the change of custody was also recorded on the DA Form 4137. The confiscated property was then properly secured until the next change of custody transfer could be arranged. The DA Form 4137 accompanied the captured property through any subsequent changes of custody, all of the way to its final disposal action.

LESSONS LEARNED

✓ **Military police are well suited to properly secure and process confiscated weapons and ammunition belonging to factions.**

✓ **Military police commanders must plan for the responsibility of securing and processing of confiscated weapons and ammunition when deployed in support of stability operations.**



TOPIC: Determining Authorized Civilian Police in the ZOS.

DISCUSSION: The direct support military police of the brigade were actively involved in the establishment of guidelines for authorized civilian police in the ZOS.

Meetings were held by the brigade commanders reference the topic of authorized civilian police in the ZOS. The following guidelines were outlined:

Civilian police in the ZOS had to be in an authorized local police uniform.

They were authorized only to be armed with sidearms only, no rifles.

They had to carry civilian police identification and credentials with picture.

A list of authorized civilian police who wish to enter the ZOS must be presented to the brigade commander.

The number of civilian police on the list must be reasonable (ratio of police to the number of local civilians).

The role of the authorized police will be limited to only law and order for local civilians in the ZOS

It was stressed to the local officials that these same guidelines will be strictly enforced on both sides of the ZOS, so that neither side will question the number and the purpose of the civilian police. The local officials said that they were impressed with the impartiality and openness of TFE soldiers and also said that they looked forward to good relations.

LESSONS LEARNED

✓ That guidelines must be clearly communicated to local officials on both sides of the ZOS on issues such as authorized civilian police. This clear communication fosters an environment of trust and impartiality between IFOR and local officials and helps eliminate any question on the role of civilian police in the ZOS as well as their numbers.

✓ The presence of U.S. military police in initial coordination meetings helps in the establishment of good relations with local police officials.

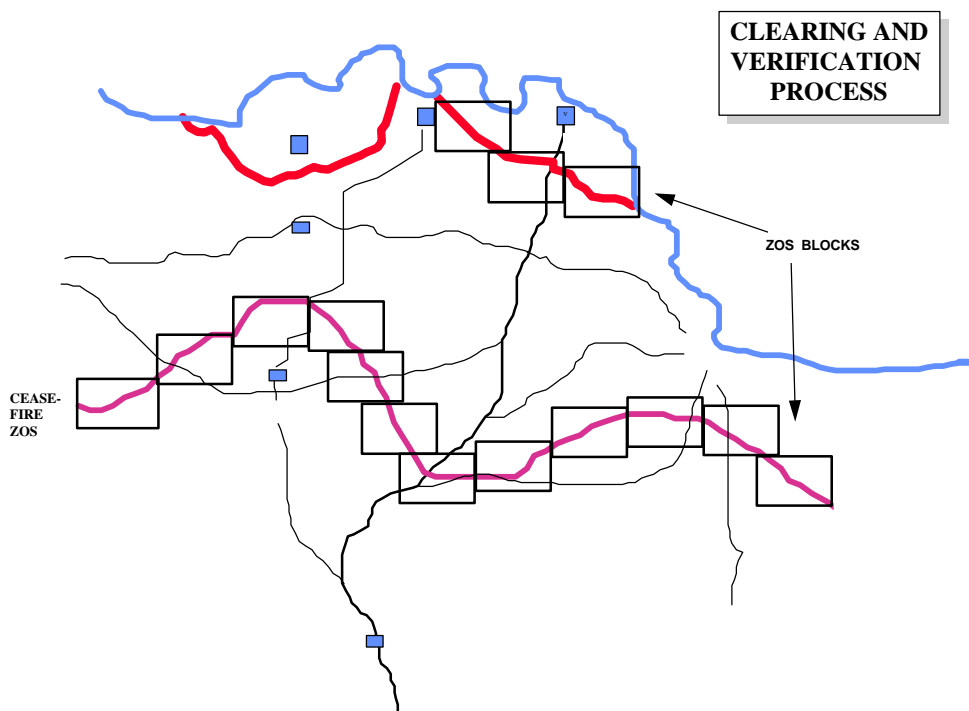


APPENDIX A

TTP for Clearing and Verification

The TTP for the separation of forces and establishment of the ZOS was jointly developed by the FWF leaders at the brigade's first JMC.

Aside from designation of the actual ZOSs, one of the first control measures that was established was the ZOS blocks. The ZOS blocks allowed the TFE to track the progress of separation and establishment of the ZOS.





The first priority was to ensure freedom of movement. The TFE and FWF would accomplish this by “punching holes” through the ZOS which entailed clearance of major routes. Once this was complete, the TFE and FWF could focus their efforts on separation of forces and other requirements of the GFAP.

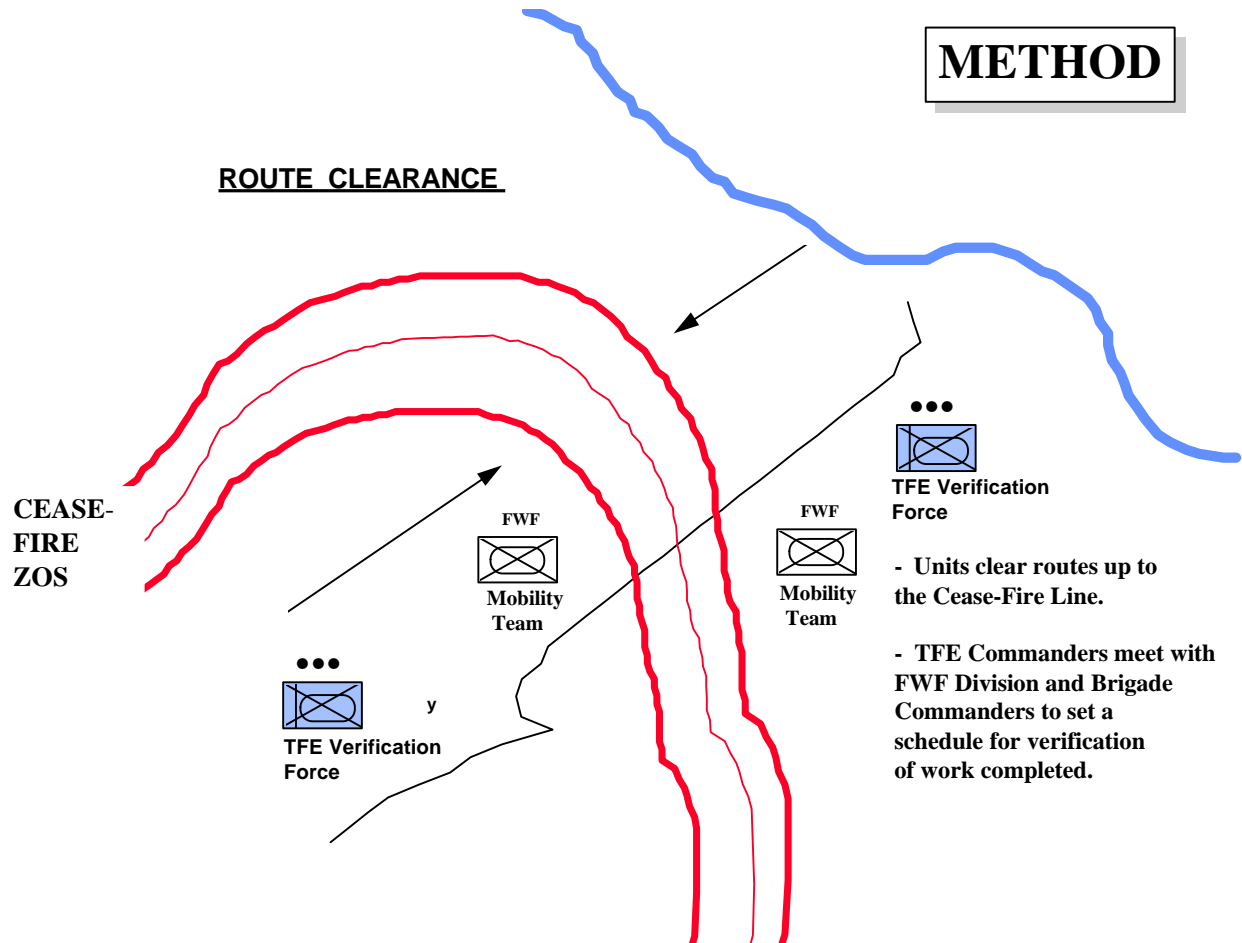
METHOD:

- **TFE commanders continue to meet with FWF leaders and verify clearing of major roads in the ZOS.**
- **TFE units report route reconnaissance and route status daily.**
- **TFE verifies FWF perform the clearing.**
- **TFE does not provide full-time escort to forces performing the work to clear routes, but verifies the work.**
- **Simultaneous clearing from both sides of the ZOS.**
- **All major routes must be cleared within the first week of operations.**
- **Clear Routes were defined by the following:**
 - ☛ **Areas cleared up to 50 meters on either side of the road (300 meters on the major MSR).**
 - ☛ **Bunkers along sides of road are dismantled.**
 - ☛ **All wire and mines cleared along the road and up to 50 meters on either side.**
 - ☛ **All unexploded ordnance cleared along the road and up to 50 meters on either side.★**



METHOD

ROUTE CLEARANCE





APPENDIX B

TTP for ZOS Breaching

The TTP employed by the brigade included the following steps and performance measures:

- Commanders determined which routes were required to be opened and then synchronized resources to facilitate deliberate and faithful execution.

- Troop and company commanders held daily coordination meetings with the factions in their AOR. The coordination meeting set the framework of how the factions would execute their tasks of compliance (e.g., destroying bunkers, clearing minefields) and how the TFE forces would verify the completion of the tasks.

- The TFE forces received detailed maps marking minefield locations. Coordination was made to determine what equipment the FWF units would require to clear routes through their minefields and locate and mark other minefields. The TFE forces had to be ready to provide body armor, Kevlar helmets, medical support, and standard marking supplies to the FWF to get them to clear the fields. All of this coordination had to be worked out through interpreters on the ground in the days before the clearing effort was to begin.

- As U.S. forces moved into sector, the engineers made contact with UN forces and received good information from the NORD bn units in the TFE sector. The information was disseminated to other TFE units through the use of sketches, copies of mine markers, and photographs. UN forces had extensive experience with the mine threat in Bosnia-Herzegovina and, therefore, were very useful in TFE force protection efforts. Units coordinated with all the factions of the former warring factions (FWF) to clear designated mobility corridors through the ZOS. Either at the JMCs or through direct commander to commander meetings with the FWF brigades, times and linkup points were defined and agreed upon. Usually, the schedule was 0830 linkup with a 0930 work time. At the designated time, the TRP/CO commander or platoon leader would move to a linkup point.

- Simultaneously, both sides would effect a linkup with the TFE elements and begin to organize their work for the day. Usually the mission would be for one or two routes at a time, but it took as many as three per company-size unit initially to facilitate freedom of movement.



● Mobility teams moved to designated checkpoints and made face-to-face coordination the morning of the mission. The lineup for a mobility team was FWF engineers, followed by an M1 tank roller, ACE or a CEV, followed by an engineer squad, followed by a Bradley section or tank platoon, and accompanied by a medic. Often the HVO provided medics as well. After the linkup of forces, the leaders were identified on both sides. The leaders of the clearing teams were further identified and the TRP/CO and FWF leaders physically linked up. At this point the team leaders made detailed plans for the day's work.

● The teams departed together, with the FWF leading the clearing teams into the zone. The FWF forces gathered the necessary equipment, if they had it, and began to clear mines. Very often, one or both of the factions involved would request demolitions, body armor, gasoline or diesel, mine sweepers, and an assortment of other items. It is difficult to determine if they really did not have the means to clear the mines or were merely stalling.

● At this point, it often became necessary to remind the faction leaders that it was their responsibility to clear their mines, not ours.

On occasion, the CO/TRP leader on the site had to announce that if the faction leader could not accomplish his mission, he left us with no other recourse than to report failure to comply to our higher headquarters. In essence, this meant that the faction was not fulfilling the GFAP. Usually this was not the case, but in stability operations, the CO/TRP leader on the ground has to be prepared to lay down the law according to the international agreement he is charged to implement.

● The easiest mines to clear were the surface-laid mines. The faction engineers gathered them together and separated the reusable ones from the rusted or semi-destroyed mines. Many were in very bad condition. Some mines were defused and collected, and others had to be blown in place. On-site negotiations were conducted for clearing the shoulders up to 10 meters on either side of the road. The method used by the factions for probing was very different to U.S. methods. The factions had long poles (about a meter) with a three-inch spike on the end. They would merely walk slowly forward jabbing the ground in front of them. They related they were primarily looking for AT mines just below the surface. The factions were very nervous about clearing the PMA-1 AP mines.



● The lanes were cleared in two directions at once. For example, one faction cleared from South to North and another faction cleared from North to South. The CO/TRPs provided security for them as they moved toward each other. One issue that had to be worked on the ground was a meeting point between the two forces. At one point, one side wanted to stop 100 meters short of where the other side would stop. CO/TRP forces on the ground had to push the issue firmly to ensure the job was finished according to the standards of the GFAP. Again, the job of carrying out international policy was subordinated to the ranks of lieutenant, captain and lieutenant colonel.

● Mobility work had to be done to finish the work on the lanes. Often, berms had to be cut, walls or other mobility obstacles had to be dismantled, and craters had to be filled. The ACE was very useful for this. If traffic on a lane was expected to be high, then gravel was needed to pour over filled-in trenches. Otherwise, within 48 hours the earth would sink into the trenches and stop wheeled vehicle traffic on that lane. An example of the battle drill follows:





Battle Drill for ZOS Breaching

IFOR KEY ISSUES

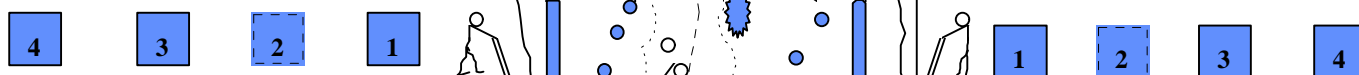
- * Battle drill begins after complete mission analysis, PCIs, safety briefs, and risk assessments
- * Clearing starts simultaneously
- * IFOR does not surrender demo, but may clear mines if faction cannot
- * Factions use mine data sheets
- * IFOR does not provide equipment (mine detectors)
- * IFOR company team commander ensures that there are no gaps or areas left to proof
- * Must have translator capability
- * Command and control vehicle behind team 4
- * ACE and AVLB along for berms and trenches, not for proofing

FACTION KEY ISSUES

- * Factions clear to the IEBL
- * There may be minefields that the "aggressor" emplaced or fallen comrades emplaced for which records no longer exist
- * Factions may not have equipment to clear (mine detectors, demo)

Teams

* METT-T determines vehicle spacing



TEAM 1: (Factional Dismounts)

- * factional engineer probes, marks, removes, and/or detonates mine/UXO
- * factional leader verifies with existing minefield records
- * uniform is orange Kevlar, reflective vest, and PRC 127, if available
- * have factional demolition capability

TEAM 2: (The factional proofer)

- * ideally the faction would provide a roller/armored vehicle to proof

TEAM 3: (IFOR proof vehicle)

- * M1/roller
- * M1/plow
- * CEV/spoil
- * If none of the above are available, cancel mission

TEAM 4: (Engineer squad)

- * mine detector and demo (IFOR use only)
- * moves in same tracks as teams 2 and 3
- * overwatch factions mark minefield IAW NATO-marking standards

The drill also applies to one faction; half side of drill applies.



APPENDIX C

The Mine Threat

Of the 3,738 reported minefields in the TFE sector, 719 were in the brigade's AOR. This alone clearly indicates that mines were the greatest threat to both the mission of establishing a ZOS and the desire to set the conditions for normal peaceful and prosperous life in Bosnia. The family of mines most prevalent in the brigade's AOR was designed and manufactured in the Former Yugoslavia. An outline of specific mines follows:

1. The **TMM-1 antitank mine** is cylindrically shaped, low profile, and made from sheet metal. The mine is pressure-plate activated, often surface laid and easily detectable with currently issued mine detectors. The maximum buried depth in which these mines will function is 150 cm (59 inches). *This mine was involved in the first mine strike of OJE.*

2. The **TMA-1 and TMA-1A antitank mines** are plastic-cased cylindrically shaped with a distinctive corrugated design on the top on the mine. These mines are nonmetallic and are not detectable with currently issued mine detectors. The maximum buried depth in which these mines will function is 16cm (6 inches).

3. The **TMA-3 antitank mine** is a blast mine made from cast TNT coated with a thin protective layer of fiberglass. It is cylindrically shaped and has three top-mounted fuze wells which contain three UTMA-3 pressure fuzes. This mine is nonmetallic and very difficult to detect with currently issued mine detectors.

The maximum buried depth in which this mine will function is 18 cm (7 inches).

4. The **TMA-4 antitank mine** is a blast mine made of cast TNT covered with a protective plastic coating. It is cylindrically shaped and has three top-mounted fuze wells which contain three UTMA-4 pressure fuzes. This mine can be fitted with antihandling devices. This mine is nonmetallic and very difficult to detect with currently issued mine detectors. However, if the mine does have antihandling devices fitted, it can be detected with conventional mine detectors. The maximum buried depth in which this mine will function is 16 cm (6 inches). This mine was involved in two mine incidents.

5. The **TMA-5 antitank mine** is a square, plastic-coated, blast-effect mine. This mine is nonmetallic and very difficult to detect with currently issued mine detectors. The maximum buried depth in which this mine will function is 16 cm (6 inches).



6. The ***TMRP-6 antitank mine*** is a cylindrically shaped, plastic-cased mine containing a steel plate penetrator. This mine can be activated by a tiltrod or by applied pressure. It also has a delay arming option. The mine contains metal and thus is detectable with conventional mine detectors. The maximum buried depth in which this mine will function is 13.2 cm (5.1 inches).

7. The ***PMA-1A antipersonnel mine*** is a rectangular two-piece plastic mine. This mine is nonmetallic and very difficult to detect with currently issued mine detectors. The maximum buried depth in which this mine will function is 9 cm (3.5 inches). ***Two hundred PMA-1 mines were in the minefield in close proximity to a mine incident.***

8. The ***PMA-2 antipersonnel mine*** is a relatively small antipersonnel mine with a cylindrical body and a top-mounted UPMAH-2 chemical action pressure fuze. The sole metallic content is an aluminum disk (8.6 mm in diameter and 0.05 mm in thickness). The mine's small size and low metal contact results in a mine that is extremely difficult to detect. The maximum buried depth in which this mine will function is 9 cm (3.5 inches). ***Four PMA-2 mines were in the minefield in close proximity to two mine incidents.***

9. The ***PMA-3 antipersonnel mine*** is a small, flat cylindrical mine. It is designed to function only when pressure is applied to the top plate. The sole metallic content in this mine is the aluminum covering on the M-17P2 detonator cap. This small metallic content renders the mine difficult to detect. The maximum buried depth in which this mine will function is 8 cm (3.1 inches). ***Five PMA-3 mines were in the minefield in proximity to one mine incident.***

10. The ***PMR-2A antipersonnel mine*** is a stake-mounted, cylindrical, cast-iron fragmentation mine. This mine is normally activated by a tripwire. Additionally, one mine could have multiple tripwires. This mine is not normally buried and thus is detectable by visual means. However, if buried, it is detectable by conventional mine detectors. ***Eight PMR-2A were reported in the minefield in proximity to one mine incident.***

11. The ***PMR-3 antipersonnel mine*** is a stake-mounted, cylindrical, cast-iron fragmentation antipersonnel mine. This mine is normally activated by a tripwire. Additionally, one mine could have multiple tripwires. This mine is not normally buried and thus is detectable by visual means. It can be emplaced in the ground; if buried, it is detectable by conventional mine detectors.



12. The **PMD-1 antipersonnel mine** is a rectangular, pressure-initiated, blast mine. This mine is readily detectable with conventional mine detectors.

13. The **MRUD antipersonnel** is a directional fragmentation mine. This mine has a plastic main explosive molded into a convex shape. Additionally, 650 steel balls are in front of the explosive material. This mine is readily detectable with conventional mine detectors.

14. The **UDAR antipersonnel mine** is a bounding mine with a fuel air explosive warhead. There are light and heavy versions of this mine. While possible to rig the function from traditional pressure and contact fuzes, the preferred method of detonation is command detonation. ★





APPENDIX D MISSION TRACKER

MISSION DATE:

MSN	UNIT	MISSION/PURPOSE/ ADDITIONAL INFO	VEH #s	OIC NCOIC	L/U TIME	L/U POINT	SP TIME	# PAX	R A
1		CP 110 - Continued Presence in ZOS/Monitor Compliance w/ Peace Accord	A12,13,14				24 hrs	10 enl	
2		CP 111 - Continued Presence in ZOS / Monitor Compliance w/ Peace Accord	A31,32,36,HQ 91				24 hrs	1 off 11 enl	
3		CP 112 - Continued Presence in ZOS/Monitor Compliance w/ Peace Accord	A21,22,23,24				24 hrs	1 off 15 enl	
4		CP 122 - Continued Presence in ZOS/Monitor Compliance w/ Peace Accord	B31, 32, 33 HQ 301				24 hrs	1 off 13 enl	
5		CP 121 - Continued Presence in ZOS/Monitor Compliance w/ Peace Accord	B34, 35, 36, C114, HQ 93				24 hrs	14 enl	
6		CP A22 - Continued Presence in ZOS/Monitor Compliance w/ Peace Accord	B21, 22, 23, 24				24 hrs	1 off 1 civ 13 civ	
7		CP 130 - Continued Presence in ZOS/Monitor Compliance w/ Peace Accord	C 21, 22, 24, HQ 94				24 hrs	1 off 13 enl	
8		Block 2 South - Day Patrol/Monitor Compliance w/Peace Accord/ Observe bunker clearance - 2 Sections: 1 RT Apple, 1 RT AZ	A11, 15, 16			CP 112 w/3 POS BDE	0830 0815		
9		Block 2 South - Night Patrol/ Monitor Compliance w/ Peace Accord - RT: C	A11, 15, 16				1915		
10		Block 1 South - Day Patrol/ Monitor Compliance w/Peace Accord - 1 Sec -	B11, 12, 13, 14, 15, 66				1000 0930	1 off 11 enl	23 23
11		Block 1 South - NIGHT Patrol/ Monitor Compliance w/Peace Accord - RT: Black N. & Red	_____, _____, _____, _____				2000		
12		Day Patrol of Block 2 and 3 ZOS/ Monitor Compliance w/ Peace Accord - RT: 1 @ 1015	C11,12,13,14,15, 16					1 off 1 civ 19 enl	22
13		NIGHT Patrol of Block 2 and 3 ZOS/Monitor Compliance w/ Peace Accord - Blue sec RT 2, Red sec RT 3	_____, _____, _____, _____				1630 2030		
14		Aerial Recon of ZOS for show of presence/Monitor Compliance with the Peace Accord	OH-58D-AH-1-				o/o		